

Chapter V. Cancer

A. Overview

Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. Cancer was the second leading cause of death in the USA and of Hawaii's residents. Cancer deaths account for nearly 25% of Hawaii's residents.¹

Cancer is caused by both external (chemicals, radiation, and viruses) and internal (hormones, immune conditions, and inherited mutations) factors. Causal factors may act together or in sequence to initiate or promote carcinogens. Ten or more years often pass between exposures or mutations and detection of cancer.

The American Cancer Society estimates that 1.382 million new cancer cases will be diagnosed over the next year. Since 1990, approximately 10 million new cancer cases have been diagnosed.² In Hawaii, an estimated 4,800 new cancer cases are expected to be diagnosed, with 137 cancer-related deaths in 1998.

The five major types of cancer-related deaths in Hawaii are lung, colon & rectum, prostate, pancreas, and breast cancer. The five primary cancer sites for Hawaii residents are prostate, lung, colon and rectum, breast cancer, and lymphoma.

The cancer rate in Hawaii, as recorded by the American Cancer Society, is approximately 20 % lower than the national average. This appears to be a positive statistic; however, many in the community feel that the cancer rates in Hawaii are under-reported due certain ethnic groups in Hawaii who do not actively seek cancer care and treatment.

We must assure access to culturally sensitive care. The Native Hawaiian Health Data Book notes that "...though Hawaiians do not have the highest incidence of cancer in the state, they do have the highest mortality rate for most cancers. This suggests that Hawaiians continue to be diagnosed late and have inadequate follow up." It is believed that Native Hawaiian and Filipino ethnic groups do not seek diagnosis of breast cancer due to their cultural sensitivity and lack of understanding of breast self examination. Individuals of Japanese descent do not seek cancer treatment due to the negative perception of people with cancer conditions.

Prevention and education are the key elements in reducing cancer rates. Cigarette smoking has long been a primary cause of lung cancer, yet many of our youth turn to smoking at earlier ages. School based health centers should be supported and used to provide holistic, comprehensive services. Existing community resources could be used in educating the public about cancer risks. There are many agencies trying outreach to our communities to reduce obesity, increase knowledge of disease causing elements, etc.; we must continue our vigilance or our disease rates will exceed national norms.

Last, there are vast amounts of funds and energy placed in cancer research. Please note that in many cancer rate and risk literature, there are usually sections devoted to cancer by ethnic groups. With Hawaii's unique mixture of ethnic groups, we should fiercely entertain drug companies to conduct their research in our region. This would allow Hawaii residents access to state of the art cancer care and research.

The primary goals of this chapter are as follows:

- Educate the public, which would result in reduced incidence and mortality of Hawaii residents from cancer.
- Provide access to cost effective diagnostic work-up, medical and surgical interventions in treatment of cancer, and support programs that promote continuity of comprehensive services and follow up, especially for neighbor island residents.
- Ensure access to culturally sensitive cancer prevention and screening programs and cancer care.
- Organize information systems linking clinical, financial, and outcomes data based on practice guidelines and quality of life. Encourage knowledge of national benchmarks and encourage providers and insurers to compare outcomes to their current programs.
- Establish multi disciplinary cancer care teams among physicians, specialists, institutional providers, and other health professionals.
- Ascertain variations of cancer incidence and mortality by geographic regions and ethnicity.
- Participate in ongoing cancer research activities.

In general, quality cancer care is available to all residents of Hawaii. However, as most of the comprehensive cancer programs are located on Oahu, neighbor island residents face transportation and access issues in receiving care.

Cultural issues still exist, especially related to the Native Hawaiian population. While the Native Hawaiian incidence rate appears low, their cancer mortality rate is high. This suggests that this population does not access the early detection and intervention programs as other ethnic groups. Further development of culturally sensitive programs for Native Hawaiians should help to alleviate this situation.

B. Measures/Indicators

1. Process Measures

Code	Measure	Monitor (Definition)	Guide-line	Hawaii Experience	Guideline Source	Cross Reference
CAP-1.1	Ensure access to cancer prevention and early detection programs	Annual mammography for women aged 50 and older for breast cancer detection	40% in 1990 *	To Be Updated By SHCC's PDC	American Cancer Society-Cancer Facts & Figures * Nat'l Health Interview Survey www.icic.nci.nih.gov/MPACdoc/advanced.html	
CAP-1.2		Annual prostate screening exam for males aged 50 and older	To Be Updated By SHCC's PDC	To Be Updated By SHCC's PDC	American Cancer Society-Cancer Facts & Figures	
CAP-1.3		Annual digital rectal exam after age 40 for prostate cancer detection	To Be Updated By SHCC's PDC	To Be Updated By SHCC's PDC	American Cancer Society-Cancer Facts & Figures	
CAP-1.4		Annual pap smear screening after age 18 for cervix cancer detection	To Be Updated By SHCC's PDC	To Be Updated By SHCC's PDC	American Cancer Society-Cancer Facts & Figures	<i>Maternal, Infant and Child Health</i>
CAP-1.5		Annual pelvic exam after age 40 for endometrial cancer detection	To Be Updated By SHCC's PDC	To Be Updated By SHCC's PDC	American Cancer Society-Cancer Facts & Figures	

Code	Measure	Monitor (Definition)	Guide-line	Hawaii Experience	Guideline Source	Cross Reference
CAP-1.6		Annual fecal occult blood test for males and females after age 50	To Be Updated By SHCC's PDC	To Be Updated By SHCC's PDC	American Cancer Society-Cancer Facts & Figures	
CAP-1.7		Sigmoidoscopy, preferable flexible, for males and females every 3-5 years after age 50	To Be Updated By SHCC's PDC	To Be Updated By SHCC's PDC	American Cancer Society-Cancer Facts & Figures	
CAP-2.1	Reduce the rate of exposure to cancer causing agents through education of the public	Reduce rate of smoking for adults 18 and over and for children and youth	15.0%-adults 18 and over 15%-children/youth by age 18	20.1%--adults 18 and over 25.1%--children under 18	<i>Healthy People 2000</i> ; DBEDT Table 2.20, 1995 Data Book; 1995 <i>Hawaii Youth Risk Behavior Survey Report</i>	<i>Maternal, Infant and Child Health; Dental (Oral) Health; Behavioral Health</i>
CAP-2.2		Physical inactivity and high-fat and/or low fiber diet – obesity	To Be Updated By SHCC's PDC	To Be Updated By SHCC's PDC	American Cancer Society-Cancer Facts & Figures	<i>Maternal, Infant and Child Health; ; Dental (Oral) Health; Behavioral Health</i>
CAP-2.3		Percent of individuals with knowledge of personal family history & lifestyle and impact on cancer incidence for early detection	To Be Updated By SHCC's PDC	To Be Updated By SHCC's PDC	American Cancer Society-Cancer Facts & Figures	<i>Maternal, Infant and Child Health</i>

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Code	Measure	Monitor (Definition)	Guide-line	Hawaii Experience	Guideline Source	Cross Reference
CAP-2.4		Solar radiation preventive measures to minimize skin cancer	To Be Updated By SHCC's PDC	To Be Updated By SHCC's PDC	National Cancer Institute - Cancer Rates and Risks	<i>Maternal, Infant and Child Health</i>
CAP-2.5		Elimination of cancer causing pesticides & industrial chemicals	To Be Updated By SHCC's PDC	To Be Updated By SHCC's PDC	National Cancer Institute - Cancer Rates and Risks	
CAP-3	Organize information systems linking financial and clinical data with an emphasis on clinical outcomes; use of clinical practice guidelines		To Be Updated By SHCC's PDC	To Be Updated By SHCC's PDC	American College of Surgeons, Standards of the Commission on Cancer, Volume 1.	
CAP-4	Development of multi disciplinary cancer teams	Community acceptance of 'Standards of the Commission on Cancer'	To Be Updated By SHCC's PDC	To Be Updated By SHCC's PDC	American College of Surgeons, Standards of the Commission on Cancer, Volume 1.	
CAP-5.1	Provide access to medical and/or surgical intervention in treatment of cancer cases	Inpatient cancer care	To Be Updated By SHCC's PDC	Available on all islands except Molokai and Lanai	American College of Surgeons, Standards of the Commission on Cancer, Volume 1.	

Code	Measure	Monitor (Definition)	Guide-line	Hawaii Experience	Guideline Source	Cross Reference
CAP-5.2		Radiation Therapy	To Be Updated By SHCC's PDC	Available on Oahu, Maui, & Hawaii	American College of Surgeons, Standards of the Commission on Cancer, Volume 1.	
CAP-5.3		Chemotherapy infusion services	To Be Updated By SHCC's PDC	To Be Updated By SHCC's PDC	American College of Surgeons, Standards of the Commission on Cancer, Volume 1.	
CAP-5.4		Oncology physicians	To Be Updated By SHCC's PDC	Medical Oncologists available on all islands except Molokai and Lanai	American College of Surgeons, Standards of the Commission on Cancer, Volume 1.	
CAP-5.5		Diagnostic lab and x-ray services	To Be Updated By SHCC's PDC	Available on all islands	American College of Surgeons, Standards of the Commission on Cancer, Volume 1.	
CAP-5.6		Outpatient Surgery services	To Be Updated By SHCC's PDC	Outpatient surgery on all islands	American College of Surgeons, Standards of the Commission on Cancer, Volume 1.	
CAP-5.7		Home Care Access	To Be Updated By SHCC's PDC	Home care available on all	American College of Surgeons,	

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Code	Measure	Monitor (Definition)	Guide-line	Hawaii Experience	Guideline Source	Cross Reference
				islands?	Standards of the Commission on Cancer, Volume 1.	
CAP-6	Access to culturally sensitive cancer care	Availability of cancer treatment and detection sensitive to the individual's cultural identity.	To Be Updated By SHCC's PDC	To Be Updated By SHCC's PDC	Native Hawaiian Health Data Book, 1996	

2. Outcome Measures

Code	Measure	Monitor (Definition)	Guide-line/ study outcome	Hawaii Experience	Guideline Source	Cross Reference
CAO-1.1	Reduce Incidence Rates of New Cancer by Site	Lung Cancer	700 per 100,000	505 per 100,000	American Cancer Society-Cancer Facts & Figures, HI Tumor Registry	
CAO-1.2		Breast Cancer	729 per 100,000	469 per 100,000	American Cancer Society-Cancer Facts & Figures, HI Tumor Registry	
CAO-1.3		Prostate Cancer	1,255 per 100,000	974 per 100,000	American Cancer Society-Cancer Facts & Figures, HI Tumor Registry	
CAO-2.1	Reduce Mortality Rates of New Cancer by Site	Lung Cancer	628 per 100,000	452 per 100,000	American Cancer Society-Cancer Facts & Figures, HI Tumor Registry	
CAO-2.2		Breast Cancer	175 per 100,000	115 per 100,000	American Cancer Society-Cancer Facts & Figures, HI Tumor Registry	
CAO-2.3		Prostate Cancer	164 per 100,000	133 per 100,000	American Cancer Society-Cancer Facts & Figures, HI Tumor	

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Code	Measure	Monitor (Definition)	Guide-line/ study outcome	Hawaii Experience	Guideline Source	Cross Reference
					Registry	
CAO-3	Obtain regional data by Subarea Health Planning Regions from the Hawaii Tumor Registry to allow review by various communities	Need data to assess reasons for high cancer rates in geographic regions	To Be Updated By SHCC's PDC	To Be Updated By SHCC's PDC	HI Tumor Registry	
CAO-4	Participation on Ongoing Cancer Research Activities	Due to the unique ethnic mix of Hawaii's population, encourage funds inflow for research of cancer drugs in Hawaii, MD training, and cost effectiveness	To Be Updated By SHCC's PDC	To Be Updated By SHCC's PDC	Cancer Research Center of Hawaii, NCI's Cancer Information Service, Cancer Research Institute	

C. Community Specific Issues

Provide access to cost effective diagnostic work-up, medical and surgical interventions in treatment of cancer, and support programs that promote continuity of comprehensive services and follow up, especially for neighbor island residents.

The Hawaii County Subarea Health Planning Council (SAC) noted the physical barriers in access to cancer care, not only inter-island, but also on-island due to its unique size. A mobile screening/treatment facility would help in rural areas. There should be more discussion of health promotion to deter development of the disease.

The Wai`anae Coast SAC stressed early recognition and reduction of cancer risk factors as very important. Statistically, the Wai`anae Coast is at major risk, with 60% of the population being Hawaiian or Part-Hawaiian; three risk factors (smoking, exposure to toxic chemicals from the military, and obesity) are prevalent in the Wai`anae area. Wai`anae coast residents should be targeted for a major educational effort to help them understand their risks and take preventive measures. Again, access to culturally sensitive care would encourage residents to seek early intervention in cancer detection and treatment.

The Windward Oahu SAC identified cancer as one of its high-risk areas as cancer rates are highest in the state for Windward Oahu residents. Access is an issue for residents of Ko`olaupua. The Windward Oahu SAC hopes to identify resources within the community that aid in cancer detection and treatment to aid in public education of cancer.

The Tri-Isle SAC requested information from Maui Memorial Hospital re: cancer cases and noted an increase of 59 cases from 1994 to 1995. They requested more data collection is needed (i.e. unreported melanoma). A recommendation is to consider mandatory reporting.

The Kauai County SAC focused on patient education as key to reducing the incidence and mortality rates of cancer. Since many individuals do not seek cancer detection and treatment, incidence rates may be artificially low, while cancer mortality rates are high. Interdisciplinary cancer team care that supports continuity of care, including follow up with ethnic minorities, will ensure access to culturally sensitive cancer prevention and treatment programs.

D. Priorities

The residents of Hawaii continue to incur cancer at lower rates than the nation. Several factors, such as lower smoking rate, as well as certain cancer types more prevalent in ethnic groups who do not constitute a majority of Hawaii's population, contribute to the lower rate.

We must continue to educate the public about cancer causes, seek culturally sensitive care for those ethnic groups who do not access diagnosis and treatment, and assure neighbor island access to cancer treatment and follow up care. Recent reports indicate people of Hawaiian, Japanese, and Filipino nationalities have higher than normal mortality rates from cancer due to lack of culturally sensitive care.

Access to cancer treatment and care remains an issue for neighbor island residents, since most of the cancer care programs are located on Oahu. Rotation of physicians through various communities on a monthly basis could alleviate some of the access issues.

NOTES

¹ Department of Business, Economic Development and Tourism

² American Cancer Society, *Cancer Facts & Figures—1997*, The American Cancer Society, Atlanta, Georgia, 1997, p. 1.